Health Priority: Social and Economic Factors that Influence Health

Economic and Social Determinants of Health: An Overview

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Introduction

One of the 11 Health Priorities identified in the state health plan entitled *Healthiest Wisconsin 2010: A Partnership Plan to Improve the Health of the Public* is "Social and Economic Factors that Influence Health." Formalizing the high priority of these factors is both timely and appropriate because a growing body of research suggests that inequalities in health in our society are strongly affected by the economic and social conditions of life.[2]

Often our society focuses on access to medical care as the most important determinant of health. Although access to health care is extremely important to health, the truth is that even if we equalized access to high quality medical care today, there would still be disparities in health. Even with equal access to medical care, racial/ethnic minorities and people with lower income and education would still have worse health and earlier deaths. Economic and social conditions of life affect health and well being over the life course in ways that are not entirely preventable or correctable by access to medical care.

This introduction will review some of the major findings of research examining the economic and social determinants of health. This review pays particular attention to research demonstrating that it is not just characteristics of *individuals* that affect health, but also characteristics of their *contexts*, such as their social networks and neighborhoods.

For example, a person may choose to smoke. A person's smoking behavior can be seen as a personal choice affected by personal characteristics. But it may be important to also understand how a person's *context* affects his/her choice to smoke. How does the smoking behavior of one's friends, family, and co-workers affect one's smoking behavior (affecting the likelihood that one starts smoking and/or the likelihood that one can quit successfully)? How is a person's choice to start smoking or ability to stop smoking affected by policies in the community that prevent cigarette advertising or that promote smoke-free work and leisure environments? How are a person's attempts to quit smoking affected by the types of interventions available through his or her medical care or through other workplace or community options? Research demonstrates that smoking behavior is not just an individual decision, but one that is affected by a person's context, suggesting that the most effective interventions might ultimately be those that address both personal and contextual factors.

Research on economic and social determinants of health increasingly demonstrates that improving the health of the population, and reducing inequalities in health, will require multiple types of

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[2] A whole issue of the journal *Health Affairs* was recently devoted to the topic of the social determinants of health. See Volume 21, Number 2, 2002 for numerous excellent articles on this topic.

interventions that affect the economic and social conditions of people's lives. These interventions need to include, or be supported by, policies that aim to strengthen individuals, communities, and systems, and that encourage macroeconomic and cultural change (Moss, 2000). Identifying economic and social determinants of health as a statewide public health system priority is an important step for Wisconsin because it emphasizes that economic and social policy are health policy. This emphasis, consistent with and combined with the core principles of social justice and the common good that guide Wisconsin's public health system, should facilitate the broad-based, multilevel economic and social initiatives that are required to reduce health disparities and to bring about significant improvements in population health in Wisconsin.

Socioeconomic status (SES) and health

Socioeconomic status is one of the strongest determinants of health in the U.S. Socioeconomic status is a general term meant to represent the broad range of socioeconomic resources on which people and places are hierarchically stratified (Robert and House, 2000a). Socioeconomic status is often measured by a person's income, assets, educational level, occupation, or a combination of these factors. Research consistently demonstrates that people with higher socioeconomic status have better health and longer lives than those with lower socioeconomic status (Adler et al., 1994; Antonovsky, 1967; Feinstein, 1993; Krieger and Fee, 1994; Marmot, Kogevinas, and Elston, 1987; Williams and Collins, 1995; Ren and Amick, 1996; Robert and House, 2000a).

Figure 1 demonstrates the link between poverty and health in Wisconsin. In Wisconsin, 26% of the poor compared to 7% of non-poor people report having fair or poor health (Wisconsin DHHS, 2002).

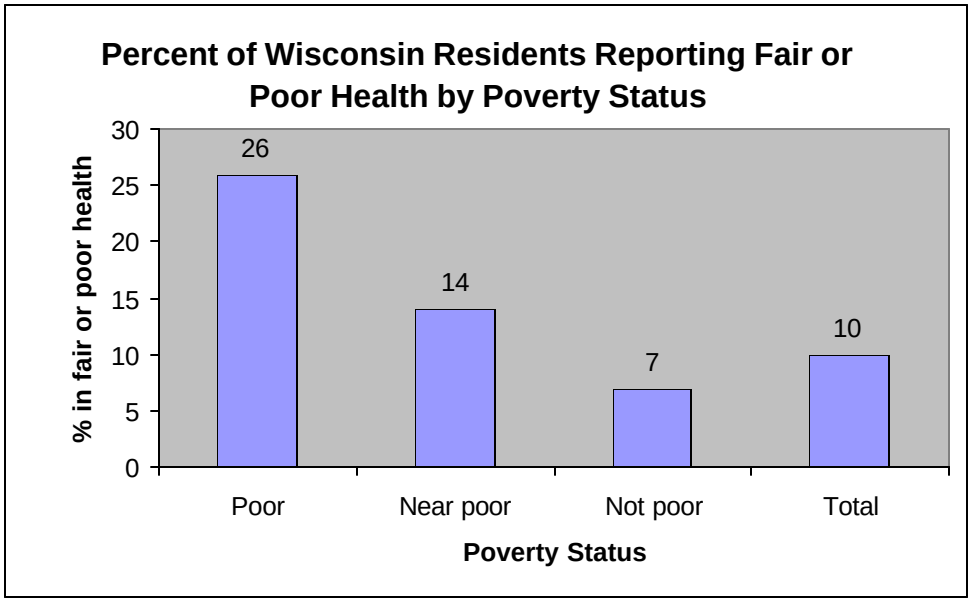


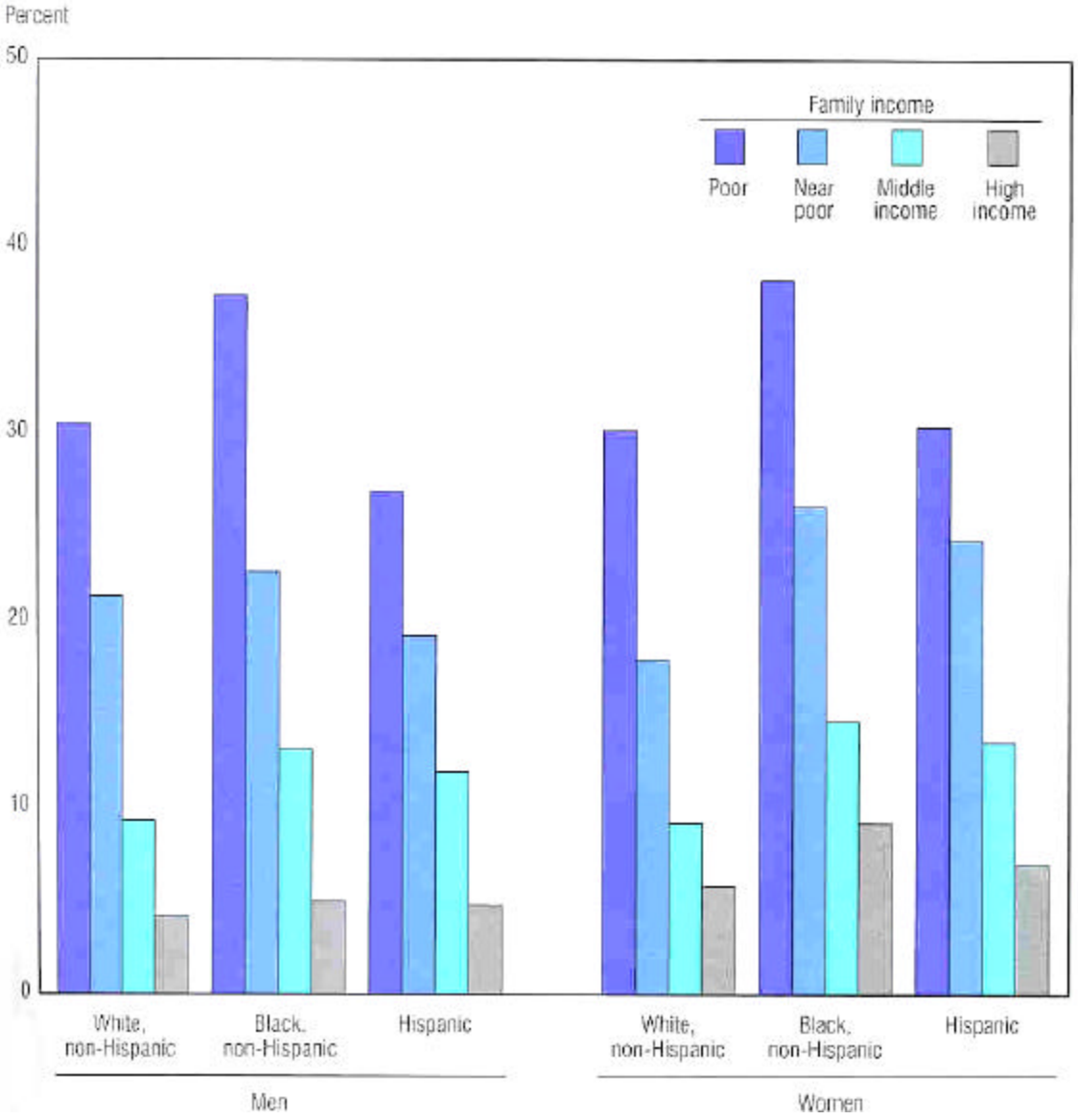
Figure 1.
Source: Wisconsin Family Health Survey, 2000

Figure 2 demonstrates that income is strongly related to self-rated health among people across different racial/ethnic groups in the United States (NCHS, 1998). Within each racial/ethnic group, poor people report the worst health. For example, among White, non-Hispanic men, about 30% of low income men report having either fair or poor health compared to less than 5% of high income men. Among Black,

non-Hispanic men, the gap is even larger. Over 35% of low income Black, non-Hispanic men report either fair or poor health compared to less than 5% of high income Black men.

Moreover, Figure 2 demonstrates that it is not just people in poverty that have fair/poor health compared to everyone else. Even those with middle income have worse health than those with high income. Therefore, it is not just the economic and social conditions associated with *poverty* that

Figure 2. Fair or poor health among adults 18 years of age and over by family income, sex, race, and Hispanic origin: United States, 1995



* Percents are age adjusted

Source: National Center for Health Statistics. (1998). *Health, United States, 1998 With Socioeconomic Status and Health Chartbook.* Hyattsville, Maryland, Figure 32, page 103.

explain socioeconomic disparities in health. This is known as the "gradient effect" of socioeconomic status on health--each increasing level or gradation of socioeconomic status is associated with better health (Adler et al.,1994; Adler and Logan, 1999; Marmot et al., 1991).

The policy implication of the "gradient effect" is that attending only to those in the lowest socioeconomic groups will not necessarily eliminate socioeconomic disparities in health. However, since the greatest effects of socioeconomic status on health *are* seen at the lower end of the socioeconomic spectrum, attending particularly to the situation of the lowest socioeconomic groups would likely go a long way to both reducing socioeconomic disparities in health and improving the overall health of the population.

Research demonstrates that multiple measures of socioeconomic status are related to health, with both overlapping and separate effects on health (Reynolds and Ross, 1998; Krieger, Williams, and Moss, 1997; Berkman and Macintyre, 1997; Lantz et al., 2001). For example, education and income have both joint and separate effects on health. Level of education affects income, which can then more directly affect health by giving people access to health-promoting resources. But level of education also affects health separate from its impact on income. Education can affect a person's knowledge of how to promote health (nutrition, exercise, etc.), and this health behavior knowledge can affect health regardless of a person's income status (IOM, 1999; Ross and Wu, 1995). Therefore, it is important to consider multiple measures of socioeconomic status when considering how to improve individual and population health.

What explains socioeconomic disparities in health?

There are many reasons why people with lower socioeconomic status have worse health than people with higher socioeconomic status. For example, people with lower socioeconomic status are more likely to have worse access to health care, have less healthy and more risky behaviors, have weaker social supports, experience more stress, and live in less healthy social and physical environments. No single one of these factors explains a majority of the relationship between socioeconomic status and health. Table 1 lists a number of the social factors that are related to health. People with lower socioeconomic status are generally disadvantaged on all of these social factors (Seeman and Crimmins, 2001; Taylor, Repetti, and Seeman, 1997; NCHS, 1998).

Often people focus on equalizing access to health care as a means of reducing socioeconomic disparities in health. It is true that people with lower socioeconomic status are less likely to have health insurance and to access high quality health care (NCHS, 1998; Monheit and Vistness, 2000; Weinick et al., 2000; Watson, 2001). Therefore, equalizing access to health care is an important step towards improving health and reducing socioeconomic disparities in health. However, research consistently demonstrates that access to high quality health care is only partly responsible for the relationship between socioeconomic status and health (Marmot, Kogevinas, and Elston, 1987; Ross and Wu, 1995; Williams, 1990; Bunker et al., 1995). Even if access to high quality medical care were made truly available to everyone, the unequal economic and social conditions of life would still produce socioeconomic disparities in health.

Similarly, people often suggest that the less healthy behaviors of those with lower socioeconomic status (e.g., smoking, poor diet, lack of exercise) accounts for their overall worse health. Yet research demonstrates that these health behaviors explain only a small portion of socioeconomic disparities in health (Lantz et al., 1998; 2001).

Discussed below are other major factors linking socioeconomic status to health, including stress, social support, and community/neighborhood context. Studies demonstrate that socioeconomic disparities in health can only be explained when many of these risk factors are considered simultaneously (House et al., 1994; Ross and Wu, 1995; Lynch et al., 1996; Power et al., 1998).

Table 1. Examples of major changeable* economic and social factors related to health

Socioeconomic Status

Income, assets, home ownership, education, occupation

Health care

Financial access to health care (insurance status, affordability)
Non-financial access to health care (e.g., availability of providers, distance, transportation)
Quality of health care (e.g., cultural competence of providers; adequacy of care; availability of appropriate treatment options)

Health behaviors and health risk factors

Nutrition, exercise, smoking, over and under-weight, alcohol consumption

Stress

Chronic stressors
financial difficulties; unemployment; workplace stress; low sense of control; problems with relationships; poor physical/mental health; exposure to discrimination based on race, gender, sexual preference, or physical abilities
Acute stressors
unemployment; death of family and friends; divorce and marital discord; losing one's social roles (e.g., in retirement, widowhood); being a victim of crime; being a victim of a discriminatory act; financial catastrophe; having a health event

Social networks and support

Social networks
frequency of social contact; size of social networks
Social support
emotional support; instrumental support (practical); negative interactions

Neighborhood/community context

Social environment
size and strength of formal and informal networks; health behaviors of social networks; exposure to crime; community cohesion and participation; racial climate
Physical environment
availability of safe leisure space; exposure to environmental toxins in work, home, and recreational areas; availability of safe and comfortable housing
Service environment
availability and acceptability of health and social services; location of and access to services; availability of transportation

*Age, race/ethnicity, and gender are all strongly related to health as well, though these are unchangeable individual characteristics. Although age, race/ethnicity, and gender are unchangeable, some of the reasons they are linked to health are changeable. For example, older adults, racial/ethnic minorities, and women have worse health partly because of their overall lower income levels. Therefore, improving income among these groups should reduce health inequalities by age, race/ethnicity, and gender.

For example, Ross and Wu (1995) found that the relationship between education and health among adults in the U.S. is almost entirely explained only after simultaneously considering work and economic conditions (employment status, income, economic hardship, work fulfillment status), social-psychological resources (sense of control, social support), and health behaviors (exercise, smoking, drinking).

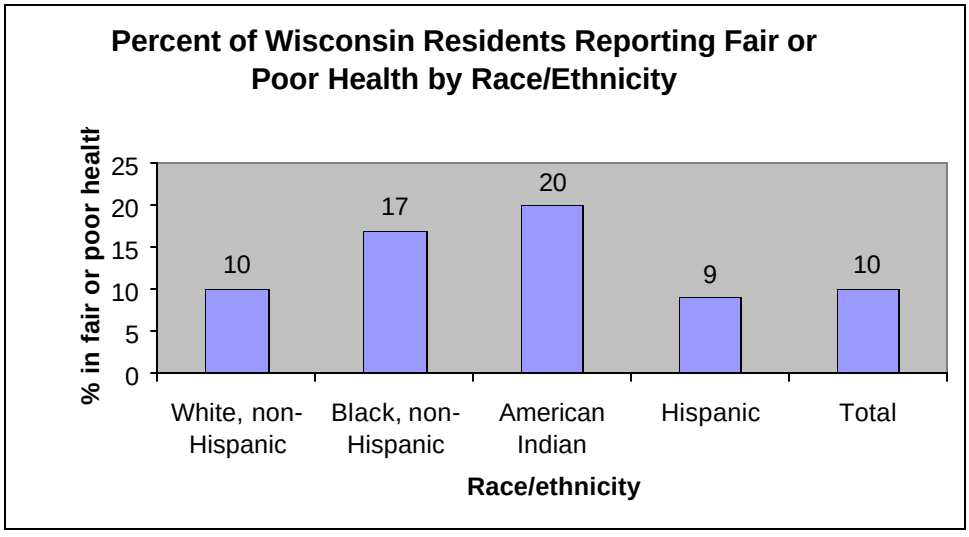
In sum, reducing socioeconomic disparities in health not only may require attention to the multiple pathways linking socioeconomic status to health (improving access to health care, health behaviors, stress, social support, etc.), but also may require directly addressing the socioeconomic conditions of people's lives directly (improving education, income, assets, etc.).

Race/ethnicity and health

In Wisconsin, as in the entire U.S., race and ethnicity are strongly related to health. In general, people of color are more likely to have worse health and earlier deaths (although there are some health outcomes for which some racial/ethnic minority groups demonstrate an advantage).

Figure 3 shows that in Wisconsin, 10% of white, non-Hispanic people report fair or poor health compared to 17% of Black, non-Hispanic people; 20% of American Indians; and 9% of Hispanic people (Wisconsin DHHS, 2002). Moreover, although infant mortality rates declined in Wisconsin between 1980 and 1998 for white infants, the same improvement has not been seen for African American infants. In 1998, infant mortality for white infants was 5.6 deaths per 1000 live births compared to between 13 and 20 deaths per 1000 live births for African American infants (Kvale et al., 2000; Aronson, 2000; Guyer et al., 2000).

Figure 3.



Source: Wisconsin Family Survey 2000

Research demonstrates that much of the racial/ethnic disparities in health and mortality are related to the overall lower socioeconomic status of people of color. However, research also shows that race/ethnicity is still related to health even after controlling for socioeconomic status. *The relationship between race/ethnicity and health is not fully explained by socioeconomic status* (Krieger et al., 1993; Lillie-Blanton and LaVeist, 1996; Mutchler and Burr, 1991; Williams and Collins, 1995; Lantz et al., 2001).

For example, Figure 4 demonstrates the relationship between education, race/ethnicity, and infant mortality in the U.S. (DHHS, 1998). Education is strongly related to infant mortality--mothers with the least education have the highest infant mortality rates. Race/ethnicity is also strongly related to infant mortality--note the particularly disadvantaged infant mortality rates among infants of Black, non-Hispanic mothers. Moreover, race and education have both overlapping and separate effects on infant mortality. Notice, for example, that Black women with 16 or more years of education have worse infant mortality outcomes, on average, than white women of any education level. On average, Black women with a college degree are more likely to have worse infant mortality outcomes than white women with less than 12 years of education. When white people and Black people share the same level of socioeconomic status, Black people are still more likely to have worse health and earlier deaths than white people.

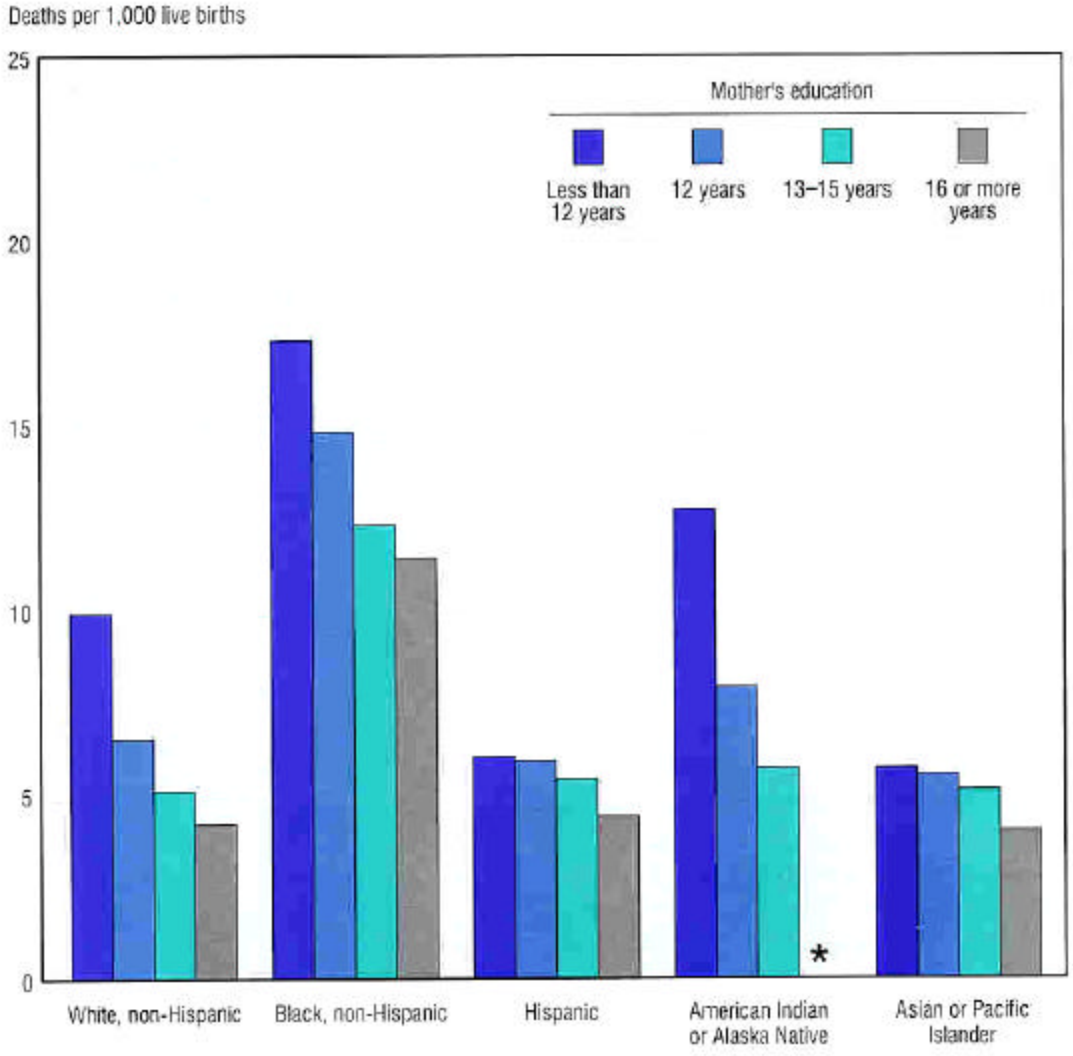
If lower socioeconomic status is not responsible for all racial/ethnic disparities in health, then what else is responsible? Researchers have been exploring multiple pathways that may link race/ethnicity to health. For example, racism can affect health by restricting access to economic resources, medical care, and other goods and resources that help maintain good health (IOM, 2002; Collins and Williams, 1999; Krieger, 2000). Racism can also produce stress among people of color who perceive that they are being discriminated against--that they are being treated in unequal, unfair, and unpleasant ways. The chronic or acute stress of experiencing discrimination may impact health (Krieger and Sidney, 1996; Williams, 1997; Williams et al., 1999; Krieger, 2000).

In addition, people from different racial/ethnic groups tend to live in different neighborhoods and are therefore exposed to different neighborhood conditions. For example, in metropolitan areas in 1990 in the U.S., only 6.3% of poor white people lived in high poverty areas, compared to 33.5% of poor Black and 22.1% of poor Hispanic people (Jargowsky, 1997). Living in high poverty neighborhoods exposes individuals to multiple conditions that can lead to poor health. Since non-white people are disproportionately exposed to high poverty neighborhoods, they are more likely to suffer health consequences rooted in poor neighborhood conditions.

Health behaviors and health

Certain health behaviors, such as cigarette smoking, lack of exercise, excess weight (and also inadequate weight) due to unhealthful eating habits, and immoderate consumptions of alcoholic beverages, have been identified as major threats to individual and population health (Emmons, 2000; DHHS, 1990; McGinnis and Foege, 1993; Fraser et al., 1997). Poor health behaviors are related to declines in health, regardless of a person's socioeconomic status (Lantz et al., 2001). However, people with lower socioeconomic status and people in racial/ethnic minority groups are more likely to have these and other unhealthy behaviors or health risk factors (Lynch, Kaplan) and Salonen, 1997; National Center for Health Statistics, 1998).

Figure 4. Infant mortality rates among infants of mothers 20 years of age and over by mother's education, race, and Hispanic origin: United States 1995

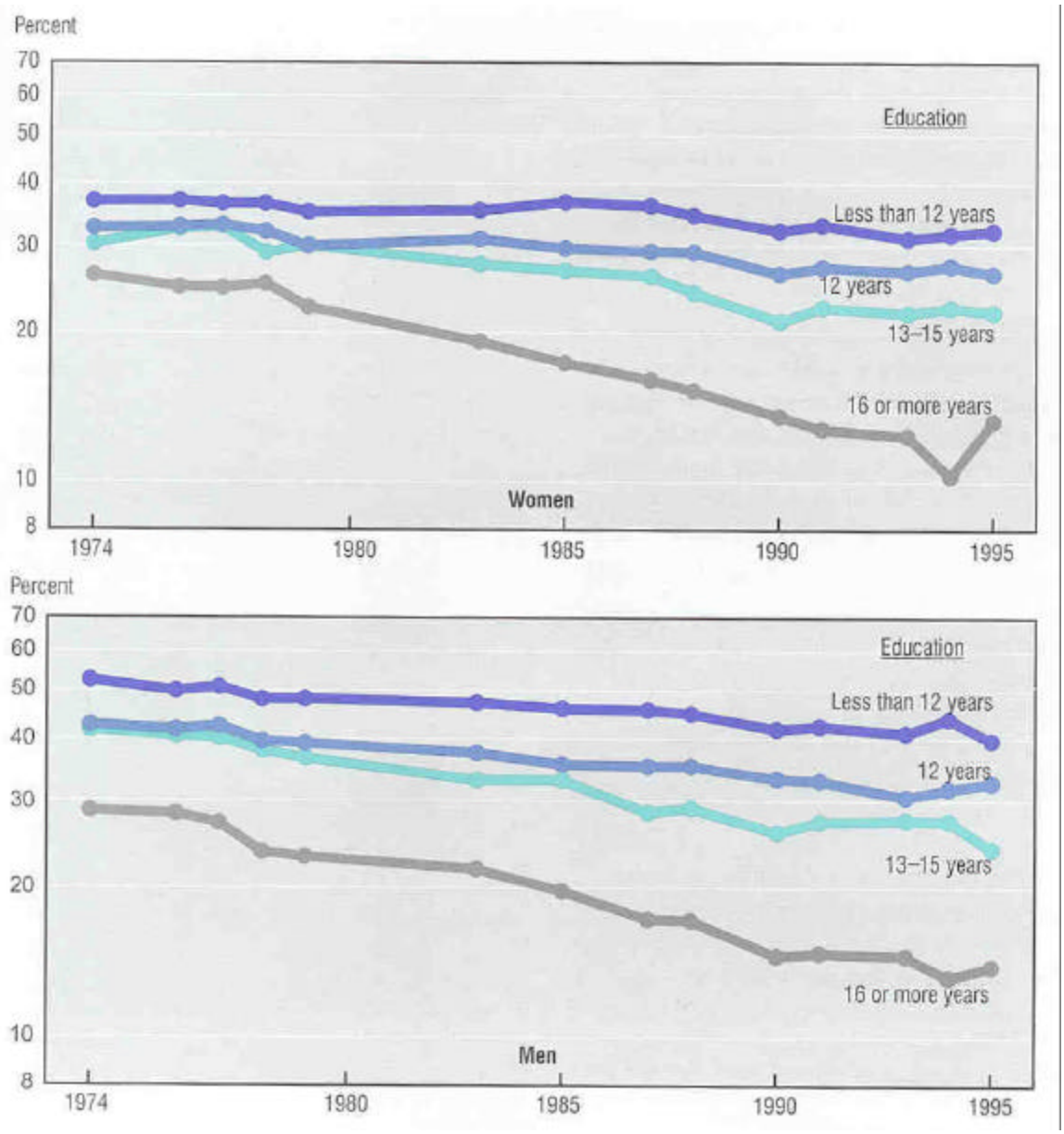


* The number of infant deaths among American Indian or Alaska Native mothers with 16 or more years of education was too small for stable rate calculation.

Source: National Center for Health Statistics. (1998*). Health, United States, 1998 With Socioeconomic Status and Health Chartbook*. Hyattsville, Maryland, Figure 9, page 53.

For example, Figure 5 demonstrates that that although smoking rates declined between 1974 and 1990 for men and women at all education levels, the decline was greatest for the most highly educated men and women (NCHS, 1998). The most highly educated individuals have been more successful at turning knowledge about healthy smoking behaviors into actual behavior change, resulting in even greater disparities in smoking status by educational status over time.

Figure 5. Cigarette smoking among adults 25 years of age and over by education and sex: United States, 1974-95*



* Percents are age adjusted and plotted on a log scale. The definition of current smoker was revised in 1992 and 1993.

Source: National Center for Health Statistics. (1998*). Health, United States, 1998 With Socioeconomic Status and Health Chartbook*. Hyattsville, Maryland, Figure 35, page 109.

However, research demonstrates that health behaviors account for only a small portion of socioeconomic disparities in health among adults in the U.S. (Lantz et al., 1998, 2001). Therefore, interventions focused on improving health solely by improving health behaviors would only partly reduce health disparities in the U.S.

Stress and health

Another category of social factors that has been shown to affect health is stress. One way that researchers look at stress is by examining both *stressors* and *stress responses*. *Stressors* are events or conditions that people might find stressful. Stress research often distinguishes between acute stressors and chronic stressors. Acute stressors are events that happen, often suddenly, such as a death or losing a job. Chronic stressors are conditions that persist--things that people may have to deal with on a daily basis, such as poor working conditions or financial strain.

We know that people also *react* differently to stressors. A particular stressor might be experienced as stressful to one person but not to another. *Stress response* is a person's actual reaction to a stressor, including both psychological and physiological responses. Research examines why a particular stressor produces a stress response and ill health in one person, but not in another.

Exposure to both acute and chronic stressors (see examples in Table 1) is associated with poor health (Lobel et al., 1992; Krantz et al., 2000; Haddy and Clover, 2001; Theorell, 2000; Kasl and Jones, 2000). In addition, people with lower socioeconomic status are more likely to be faced with both acute and chronic stressors (Turner et al., 1995). People with lower socioeconomic status may also be more vulnerable to those stressors. In other words, in the face of stressors, a stress response may be more likely to occur in individuals with lower socioeconomic status. People with lower socioeconomic status are more likely to face multiple stressors simultaneously and may have fewer economic and social resources to buffer the effects of those stressors on the stress response.

There are different levels of intervention to consider in order to reduce the negative effects of stress on health. For example, improving coping strategies (individual level strategy) and improving social support (individual, family, or community level strategies) may help people deal with the stress that they do experience. We might also consider strategies to prevent or remove the stressor that produces the stress response in the first place. For example, if a person is experiencing stress due to perceived discrimination, we might help the person deal with this stress, and we might also explore ways of reducing discrimination in the workplace, community, and society more generally as well.

Social support and health

Over the last two decades, there has been increasing interest in whether and how social support is related to health. Social support has generally been conceptualized as *positive* and has been found to relate to health and mortality (Berkman et al., 2000). For example, having larger social networks, frequent social contact, and at least one close relationship is associated with better health and longer life (Cohen and Syme, 1985; House et al., 1988).

Social support is often thought of in two ways: 1) in terms of the *structural features* of social networks, e.g., looking at the size of people's networks and the frequency of their social contacts, and 2) in terms of the *quality or content features* of these relationships, e.g., whether a person's social support system provides emotional support (such as listening, giving feedback), or instrumental support (such as help around the house, transportation to doctor's appointments). In addition to this personal level of social interactions, the concept of social support extends to embrace the macro-social context (Berkman et al., 2000). Social network effects on health are related to larger social and cultural structures, such as cultural norms, racism, social cohesion, economic changes and political cultures in neighborhoods, cities, states, and society as a whole.

Social support impacts a wide range of health outcomes, affecting our psychological, behavioral, and physiological functioning. Research has found that social support has both *direct* effects on health and *buffering* effects on health.

Direct effects of social support on health

Positive emotional support and social contact affect positive perceptions of self-efficacy, self-worth, and well-being, which then maintain or improve health through biological responses (e.g., through the immune system) (Berkman et al., 2000). At the same time, social relationships can be sources of demands, conflict, embarrassment, and devaluation, which can detrimentally impact physical and mental health (Lincoln, 2000; Ingersoll-Dayton et al., 1997). Racism and discrimination are examples of the type of social interaction that can negatively affect health (Krieger, 2000). Support from others also encourages healthier behaviors, which then affect health. The reverse is true as well—poor health behaviors among friends, family, and in the community, produce or reinforce negative health behaviors (Emmons, 2000).

Buffering effects of social support on health

All people are exposed to acute and chronic stressors—why does stress cause poor health in some people and not others? Some research indicates that in the face of acute or chronic stressors, social support can "buffer" the potential negative consequences of those stressors. For example, talking with a supportive person can help a person reappraise or more effectively deal with a stressor. Moreover, the instrumental support received from people may also help deal with a stressor—such as having someone help with transportation, child care, or meal preparation.

In an interesting study, Cohen and colleagues (1997) examined the idea that the diversity of network ties is related to susceptibility to the common cold. Study participants were given nasal drops containing one of two cold viruses and were then monitored to see if they developed a cold. Results demonstrated that those with more types of social ties were less likely to get the cold, developed less severe cases of the cold if they did get it, and were able to get rid of the cold faster. These results held even after considering virus type, age, sex, season, body mass index, education, and race. This study suggests that diversity of social networks affects susceptibility to and recovery from illness.

Community/neighborhood context and health

A growing body of research demonstrates that the *social*, *physical*, and *service environments* of neighborhoods all contribute to the health of neighborhood residents (Robert, 1999; Macintyre and Ellaway, 2000; Diez-Roux, 2000).

Community/neighborhood *social* environment

The social environment of communities can affect the health of all community residents in a number of ways. For example, poorer communities often have higher levels of both actual and perceived crime (Hsieh and Pugh, 1993), which can affect the health of all residents (Macintyre et al., 1993; Sooman and Macintyre, 1995). Actual crime can directly affect health through bodily harm, while fear of crime can indirectly affect health by increasing stress, promoting social isolation, preventing health-promoting behaviors (e.g., walking for exercise), and preventing access to services for those fearful of traveling freely in the community.

Living in communities with lower average levels of income and education can negatively affect a person's health-promoting attitudes and behaviors by exposing a person to lower socioeconomic status neighbors who are, themselves, less likely to practice health-promoting behaviors. Some evidence indicates that living in communities with lower socioeconomic levels is associated with a greater likelihood of smoking, higher blood pressure and cholesterol levels, and other health behaviors and health risk factors, even after controlling for individual socioeconomic status (Winkleby, Fortman, and Barrett, 1990; Kleinschmidt et al., 1995; Diez-Roux et al., 1997; Reijneveld, 1998).

In addition, recent literature has examined the health impact of community "social cohesion and social capital". Community social cohesion and social capital have been defined in a number of ways. Kawachi and Berkman (2000) suggest that "social cohesion refers to the extent of connectedness and solidarity among groups in society" (p. 175). To measure group social cohesion, Kawachi and colleagues (1997) looked at national surveys to see how people responded in agreement or disagreement to statements like: "Most people can be trusted," "Most people would try to take advantage of you if they got the chance," and "Most people are helpful." They then created profiles for each state in the country based on the responses of the state residents in order to characterize each state as being low trust, medium trust, or high trust states (Wisconsin had better than average social capital as measured in this study). Kawachi and colleagues (1999) found that individuals living in states with lower levels of social capital were more likely to have poorer self-rated health, even after controlling for their own socioeconomic status, health behaviors, and access to health care.

Community *service* environment

The socioeconomic context of communities may affect access to adequate or high quality services for all residents. Municipal services such as policing, fire, and sanitation are often less adequate in poorer communities, impacting the health and safety of all residents (Wallace and Wallace, 1990). People in lower socioeconomic communities often have to travel outside of their communities to have access to more affordable and higher quality food (Troutt, 1993). The existence of, quality of, and access to medical and social services (such as congregate meals, senior centers, mental health services, and family services) may differ by socioeconomic characteristics of communities. Necessary or high quality medical and social services may not even exist in a community, even if some residents are able to pay for them, or access to those services may be hampered by barriers such as inadequate or unsafe transportation systems.

Community *physical* environment

Some communities may have pollution that affects the health of all residents. The quality of air and water and the location of toxic waste dumps and incinerators tends to differ by the socioeconomic characteristics of communities (Bullard, 1994; Evans and Kantrowitz, 2002). Communities with lower socioeconomic levels may offer less healthy housing, work places, and recreational options, with greater potential exposure to toxins such as lead paint, asbestos, and pest infestation (Troutt, 1993; Evans and Kantrowitz, 2002).

Summary of community/neighborhood effects

Research on communities and neighborhoods emphasizes that it is not just personal or individual circumstances that affect health. Community interactions and exposures affect individuals' biological, psychological, behavioral, and social characteristics, conditions, and experiences that can directly affect health. Improving the health of the population and reducing disparities in health may require

interventions that consider aspects of the community context that promote or inhibit good health among residents.

Life course factors and health

Health in adulthood is affected by economic and social conditions that accumulate over the life course. Barker (1994) demonstrated that exposures in very early life influence the development of disease in adulthood. In particular, Barker suggests that there are critical periods of development during which time children are particularly vulnerable to negative exposures. For example, if a fetus is exposed to maternal malnutrition during a critical period, it will have increased risk of diabetes or cardiovascular disease in later life.

Socioeconomic conditions in both childhood and adulthood each have separate and overlapping pathways to health (Lynch, Kaplan, and Salonen, 1997; Kuh and Ben-Shlomo, 1997; Power and Hertzman, 1997). For example, a study of Finnish men found that *childhood socioeconomic conditions* were strongly associated with later physical activity and diet *in adulthood*. In contrast, one's own socioeconomic status as an adult (education and occupation) was strongly associated with adult smoking behavior (Lynch, Kaplan, and Salonen, 1997).

Socioeconomic conditions in childhood and adulthood can combine in complex ways to affect adult health. For example, having low birth weight (which is associated with low parental socioeconomic status) combined with being overweight in adulthood (associated with low socioeconomic status as an adult) produces a higher probability of having adult non-insulin-dependent diabetes mellitus (Lithell et al., 1996) and hypertension (Wadsworth, 1997) than either risk factor alone.

Addressing social and economic conditions at all ages is important in order to promote health across the life course. Exposure to poor economic and social conditions during childhood can affect not only the health of people during childhood, but their later health in adulthood as well, even if their adult social and economic conditions are favorable. Therefore, social and economic investments in childhood may be seen as health investments.

Similarly, economic and social conditions in middle ages can affect health at older ages. For example, research demonstrates that the poor health of women is exacerbated by their overall lower socioeconomic status over the life course. Particularly at older ages, women are much more likely than men to be in poverty. For example, in 1991, 41% of Black women over age 75 were in poverty compared to 25% of Black men over age 75. White women over age 75 had a 17% poverty rate compared to 7% of older white men. At older ages, women are more likely than men to be unhealthy and to have care needs, they are less likely to have a spouse to help them meet those needs, and they are more likely to be in poverty and therefore unable to address their care needs with their own resources. Improved economic and social conditions for women across the life course may promote positive health and prevent unnecessary burden of disease at older ages.

Summary of research on economic and social determinants of health

In recent years, our society has tried to improve health primarily by improving access to health care and by getting people to change their unhealthy or risky health behaviors. Research on the economic and social determinants of health indicates that access to health care is a necessary but not sufficient determinant of health status. Similarly, changing unhealthy or risky health behaviors among individuals will certainly improve population health, but health disparities would still remain.

Research demonstrates that multiple aspects of economic and social life combine in complex ways to affect health status. We need to understand and address how factors such as socioeconomic status, race/ethnicity, social support, health behavior, stress, and community context combine to affect health over the life course. In the end, we may go further in improving population health and reducing health disparities if we treat *economic* and *social* policy as *health* policy, attending to how our economic and social interventions and policies might maintain health across the life course.

Next steps

Ongoing research will help us better describe how economic and social determinants affect health over the life course, in what circumstances, and for which people. However, there is already sufficient understanding to move ahead with new intervention strategies that affect economic and social determinants of health in order to improve multiple health outcomes simultaneously (Moss, 2000; Heymann, 2000; Auerbach and Krimgold, 2001; Mechanic, 2002; McGinnis, Williams-Russo, and Knickman, 2002).

As just one example, in recent years, researchers and policy makers in the U.K. have committed to systematically assess how various types and levels of interventions might ameliorate health disparities in their country. Table 2, titled "Recommendations on inequalities in health in the UK pertinent to the US," is based on the work of Benzeval et al. (1995) in the UK, that was then adapted by Moss (2000) to fit the contemporary U.S. context. This table demonstrates four levels of intervention that might be considered based on current knowledge of economic and social determinants of health and provides just a handful of specific examples of the types of interventions that might both improve overall population health and reduce health disparities.

Table 2. Recommendations on inequalities in health in the UK pertinent to the US: Level of policy initiatives and examples (from Moss, 2000)

Strengthen individuals
Behavioral changes and supports, e.g., stress management
Smoking cessation clinics
Nutrition interventions
Counseling services
Strengthen communities
Increase opportunities for healthy social interaction and networking
Facilitate community development
Strengthen community groups
Improve access to essential facilities and services
Ensure adequate and secure housing
Build upon and extend public health initiatives to improve infrastructure, reduce pollution
Legislate for public health and safety, e.g., smoking, seat belts
Providing universal comprehensive health and social insurance
Encourage macroeconomic and cultural change
Provide income maintenance policies for broad adequate support
Improve education and training policies shown to reduce long term poverty
Ensure equitable compensation, taxation, and income distribution policies
Create new sources of access to investment capital to spur entrepreneurial activity

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